Will Mars solve Mysteries of th

In his book America BC Professor Barry Fell relates how a curious document was brought to his attention. The document, which had been printed in New York in 1866 and included in a book on the Wabanaki Indians of Maine written by Eugene Vetromile, a priest who had ministered to the Indians, was headed The Lord's Prayer in Micmac Hieroglyphs.

Fell writes: "At first glance I perceived that about half (at least) of the hieroglyphic signs were remarkably similar to Egyptian hieroglyphs as rendered in the simpler cursive form called hieratic. But what was more surprising, indeed mystifying,

was that the meanings of these signs in Egyptian matched the meaning assigned to them in the English transcript of the Micmac text given on the document." Professor Fell goes on to relate how the 18th century priest Pierre Maillard had claimed that he had personally invented the Micmac hieroglyphic writing system because, like other missionaries, he had found it easier to teach the Indians by using hieroglyphic signs. Checking dates, Professor Fell discovered that Pierre Maillard had died in 1762. Jean Francois Champollion, the French Orientalist, did not publish his first decipherment of Egyptian hieroglyphics based on his study of the Rosetta Stone until 1823. This meant that either Maillard had knowledge of the Egyptian hieroglyphic system before Champollion's decipherment, or that the Micmac Indians had derived their writing system from the Egyptian hieroglyphs before the rest of the world acquired a working knowledge of it.

Another document, bequeathed by Father Maillard to the Micmac Indians before his death, also came to light. Fell said, "It proved to contain hundreds of different hieroglyphic signs, a considerable proportion of which are clearly derived from, or even identical with, ancient Egyptian hieroglyphs or their hieratic equivalents." Further investigations by Fell eventually revealed the truth of the matter. Father Maillard had not invented the writing system but had used a system already in use. When instruction of the Christian doctrine was first given to the Indians, it was noticed that some of the Indians made signs on birchbark during the preaching. They explained that they were recording the statements of the priests. This was confirmed by Father Eugene Vetromile in a written testimony, and by other ministers who worked with the Indians.

It would appear that the Micmac writing system is not a modern invention but is indigenous to the northern Algonquian tribes because, according to Father Vetromile, similar writing was employed by all of these tribes. All of this does not imply that the Micmac and related Algonquians are descendants of ancient settlers from Egypt. The Algonquian language is not directly related to Egyptian but contains a recognisable, albeit limited, number of loan elements which, according to Fell, are suggestive of contacts with Egyptian or Libyan speakers.

Also worth noting is that one branch of Algonquian Indians, the Montauk tribe, may have been pyramid builders, or at least Pyramidal mound builders. There are indeed numerous examples of pre-Columbian contacts between the old and new worlds which suggest that crossings were made during a more recent epoch.

Could these crossings be the result of earlier transoceanic navigation by mariners during or before the Bronze Age and did these mariners possess knowledge concerning the determination of longitude which was later forgotten? The question must remain open.

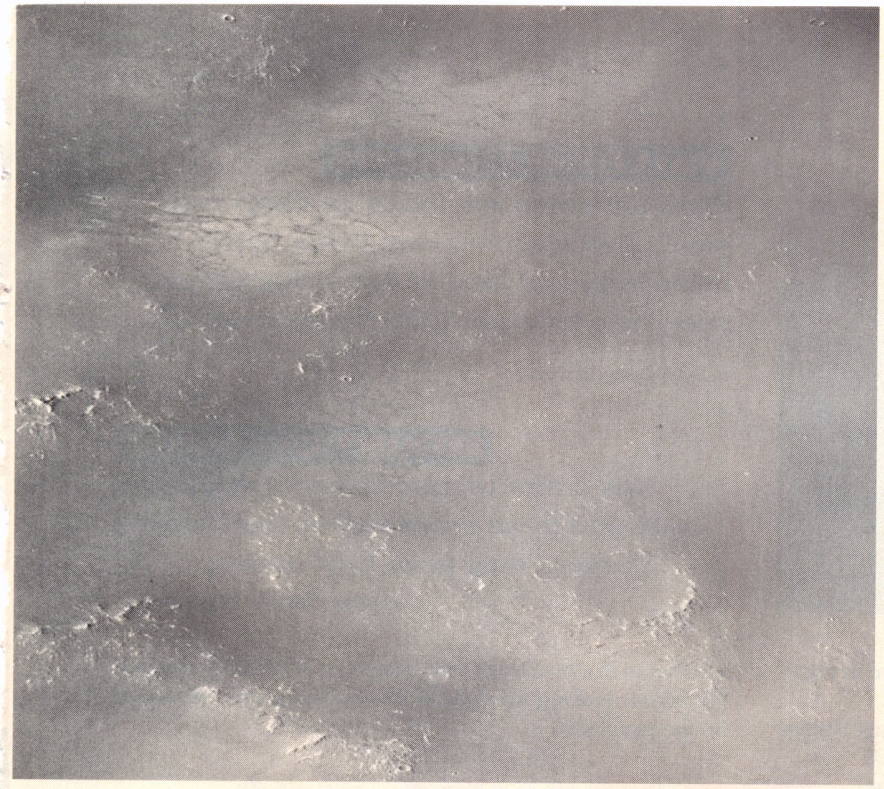
Usually such controversial finds are either ignored by mainstream archaeologists or described as forgeries. One of the most intriguing cases, and one that deserves modern reappraisal, stems from the Teotihuacan area at Calixtlahuaca in the valley of Toluca, west of Mexico City.

There, sometime during the 1940s a small terracotta pot in the form of a sculptured head was excavated from a truncated pyramid. The "head", about two centimetres high, showed the face of a bearded man and the style of the carving was indisputably of Hellenistic-Roman origin. It formed part of a cremation offering and had been sealed under three layers of stone. Other offerings were thought to date from the 12th century AD. Thus the small head had been in Mexico for a thousand years.

It is uncertain as to whether the head was brought to Mexico via a transatlantic crossing or from China, another area where pyramids are found, via south-east Asia and the Pacific. Who was the man shown on the carving and why, after travelling halfway round the world, was this foreign artefact so revered to form part of a cremation offering in a pyramid?

Another old-world find which stems from Brazil is that of the stone containing a Canaanite inscription which was discovered by slaves in 1872. Joaquim Alves da Costa, the owner of the plantation, wrote to the President of the Instituto Historico and enclosed a copy of the inscription. A study of the inscription was subsequently undertaken by Ladislau Netto, a member of the institute.

Although Netto was the only person in Brazil at the time with a sufficient working knowledge of the Semitic language, he was not sufficiently



OLDEN PONDS

Evidence of an ancient Martian lake: The web of dark lines against the light background, upper left, may be the cracks of a dried lake bed.

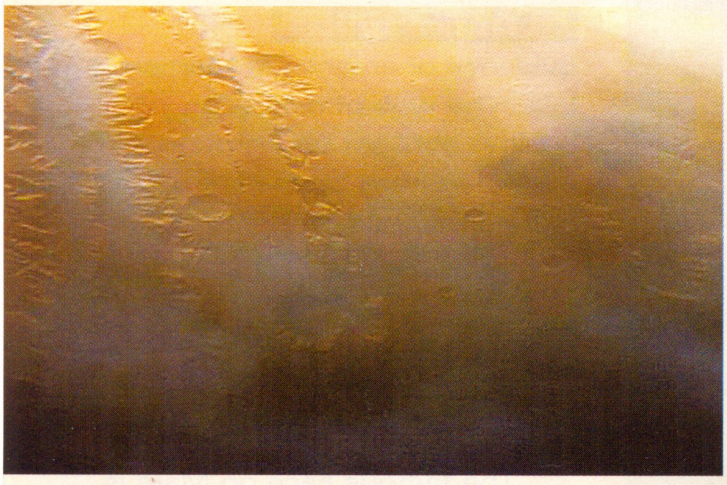
THE FACE

The famous Face on Mars is seen here in broad daylight. Without the highlighting shadows, it's just a big rock battered by wind and water.

images one line at a time. Though the high-resolution camera, with one row of light sensors, takes only a ribbonlike picture of a single two-mile-wide swath of the surface, two-dimensional pictures are built up as the orbiter flies from pole to pole over the Martian surface.

Everyone knew the pictures would be impressive—the resolution is some 20 times better than *Viking*'s best. Still, no one expected anything as powerfully evocative of a once-wet Mars as the image of Nanedi Vallis sent back in January. Winding its way through a featureless Martian plain, Nanedi Vallis looks every bit like a river gorge. The walls slope down to a small channel; dark streaks along the sides suggest layer upon layer of sediments or volcanic ash deposited over the millennia; oxbows hint at the kind of erosion that shapes terrestrial rivers. At first glance, the only tip-off that this is a Martian landform is the sprinkling of impact craters around and within the gorge. "It looks just like the lower Colorado River below Hoover Dam," Carr says. "There's a deep meandering valley and you can see the river channel at the bottom of it. This is pretty convincing."

Other planetary scientists think the look of Nanedi Vallis may be deceiving. Malin believes that some parts of the valley were cut by water flowing on the surface but that other parts were cut from below, as water streaming through an underground aquifer carried off material until the surface layers collapsed to fill the void. "At some point there was a fluid flowing through the valley," he says. "It does look like a river. But there are immediately adjacent areas that were created by another process." If so, Nanedi Vallis would be much like the Colorado River, a surface river with many tributaries formed from collapsing underground aquifers. This sapping of the landscape by subsurface water flow has been used to explain many Martian features that, on the face of it, certainly seem like river-cut ravines. And even Carr agrees that this valley is not ironclad evidence of a terribly warm and wet Martian past:



VALLES MARINERIS

Plate tectonics like those on Earth may have produced this vast valley 3,000 miles long and almost 400 miles across, seen here through light cloud cover.

MOUNT OLYMPUS

This crater-topped volcano, 400 miles wide and three times higher than Mount Everest, may have kept underground water from freezing.

small tributaries, which a rain-fed river would have in abundance, are notably absent.

Did Mars ever sustain flows of water? Geologist Robert Craddock of the Smithsonian Institution's National Air and Space Museum in Washington thinks the soft-looking features in the southern highlands are a key holdover from the early days of the planet. While craters formed in the last 3.5 billion years or so are sharply defined, the very oldest craters are rimless circles, as if they had been stamped into the surface rather than blasted out. "Our analysis shows you need two processes to transform a fresh crater into this degraded shape," Craddock says. "One is surface runoff and the other is diffusion, what you get when you hit an unvegetated surface with raindrops." To account for the softening of these features, you would need a lot of precipitation—at least occasional heavy rain over thousands of years. That would make these features good evidence of a full hydrologic cycle on ancient Mars.

To account for a softening of Martian features, you would need a lot of precipitation—occasional heavy rain over thousands of years.

Craddock hopes images of the older, battered terrain of the southern hemisphere from *Mars Global Surveyor*, which thus far has been concentrating on the north, will bolster his case for a rainy era. But indirect support may already be available in the pictures of the windblown dunes found all over the planet. "If you have rainfall, you have mechanical weathering, the physical breaking up of material from the raindrops," Craddock says. "That might explain the soil types we see." Sweeping across vast stretches of the Martian landscape, the dunes can be quite startling at first glance: they look like oceans with whitecaps set in stone. But while the large quantities of dust suggest aggressive action by water rather than erosion by the thin Martian atmosphere, the dunes can also complicate matters by hiding features researchers most want to see. For example, the channel in Nanedi Vallis is smothered in a blanket of dust, making it difficult to pick out. Geologists looking for signs of ancient shorelines encounter similar problems.

But maybe not

all the surface water is so ancient. If water does indeed lie deep underground in permafrost layers, renewed geothermal activity or a meteor impact could shoot superheated water gushing to the surface. "Well, immediately after a meteorite impact, there wouldn't be a lake," says Nathalie Cabrol, a planetary scientist at NASA's Ames Research Center. Instead ice at the impact site would be driven away by the tremendous force of the collision. It might take decades for the region to recover. "But as the pressure and temperature go down," says Cabrol, "the water trapped as ice below the surface surges in. You get an exploding geyser." Cabrol has identified relatively recent craters that appear to have channel erosion, lake beds, and sediment deposits in or around the sites, and she hopes to explore them with robotic rover missions over the next few decades. Not only are these sites, such as Gusev Crater next to the tropical Ma'adim Vallis, biologically intriguing—the valley's waters, warmed by local geologic activity, could have been the home of rudimentary life-forms—but such places could also, Cabrol contends, have supported open lakes and rivers much more recently than has been generally accepted. "What I've seen is so fresh that the deposits must be very young," Cabrol says. "Maybe only a few million years old."

Under the conditions now found on the Martian surface, freshwater freezes immediately. Even if it is heated, the ice will evaporate rather than melt in the rarefied atmosphere. But brine, which is water loaded with dissolved salts, has a much lower melting point. Cabrol argues that these mineral-laden waters could have survived on the surface for a long time—maybe thousands of years. In fact, a *Surveyor* image of an area just upstream of the large Schiaparelli Crater seems to show the dried remains of ancient salt lakes, white patches cracked with spiderwebs of dark lines. Needless to say, Cabrol's theories are controversial; even the hardiest brines cannot overcome the planet's present-day wicked cold and withering air.

The Implications of Life on Mars

by Giuseppe Filotto

Martian Implications

As readers of AA&ES will know, there has been quite a controversy raging recently about the Face and Pyramids of Mars. In fact the word 'recently' is a misnomer, because The Face and City have been a bit of a thorn in the side of certain people for some 20 years now.

I have been involved in researching this general topic for about five years, and one of the issues which concerns me most about this whole 'Face thing', is that normally people seem to miss the point. The important point that is, one which has nothing to do with pyramids, aliens (being autopsied or otherwise), religious belief systems which will need restructuring or little green men. The important point you see, is technology — the technology related to the Face and City, and its implications for us here on Earth. As I hope to show in this and the next edition's article, these 'anomalies' on Mars have implications for us here on Earth that are meaningful enough to make (if you could get him to listen) even the dullest, numbest, retrograde drop-out jump up, take notice, put on a suit and tie and run out there into the big bright world in order to make it take notice of certain pertinent facts.

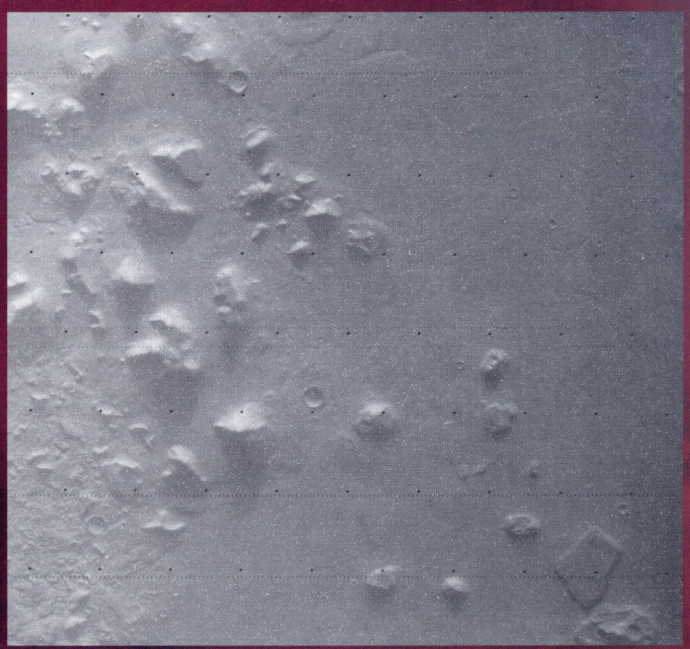
A big claim you might think, and I would be the first to agree, but before making your mind up one way or the other, I would ask one thing of you: read this information, checking my facts. After all, maybe I'm just another hyped journo on a mission, right?

The space I have been granted will not permit me to give as complete a list of references as I would like, but in this regard, as I did in the supplement of issue 11, I refer you to my book, where I have been as particular as possible in terms of providing names of persons, books and journals used whenever presenting factual information.

Independent Analysis

The Face has been analysed independently and in different ways, by several persons, all of them professional people. Most relevant amongst them are Dr Mark Carlotto, Vincent DiPietro and Gregory Molenaar.

DiPietro and Molenaar where the first to work on the Face and are also the discoverers of the second picture of the Face that was in the NASA picture archives (misfiled) which, now that two perspectives were available, allowed people like Carlotto to produce 3D models of the Face. In addition, they developed the SPIT (Starburst Pixel Interpolation Technique) imaging algorithm, which allowed unprecedented clarity in the Viking images. When viewed through the SPIT process, the Face shows an eyeball in the more clearly visible left eye socket and what appear to be teeth in the mouth. It is important to stress that the computer enhanced imaging algorithms used by all the investigators I talk about are merely data analysis tools that reinterpret the existing information in picture format. No information is added, no one goes in with a surreptitious mouse movement to airbrush a quick nose job on the Face. The techniques merely remove noise and sharpen the picture by enhancing the light contrast.



Frame 35A72. These frames were all taken from the NASA "Project Viking Mission to Mars" CD-ROM, part of their Planetary Data System series of original images from missions. They were enhanced digitally at the AA&ES Editorial Office using techniques that bring out detail within the frames. No data has been added during the process - everything you see in these frames was originally there.

Exactly the same methods are used in trying to identify criminals on poor quality video tapes from crime scenes, and surely, the police do not 'add' any information either. These algorithms are used precisely because (weird as it sounds) they give a better quality picture than the original, so, if they seem to show a humanoid face structure on Mars, complete with eyes and teeth, more likely than not, that is what is there.

Carlotto similarly analysed the Face by several methods, all of them consistently produced an image that more than anything resembled a human-like face and the nearby buildings similarly have a tendency to look artificial in nature.

Additionally, Carlotto constructed a three-dimensional computer model of the Face using a shape-from-shading algorithm, and this, along with his even more recent work (some of which can be seen on the World Wide Web: do a search for Face on Mars, Carlotto's stuff will come up eventually) proved an important point. The Face retains its characteristic shape in three dimensions. Natural rock formations that resemble well known objects (there is at least one in Cape Town that resembles an old man and another Face on a cliff in the Baviaanskloof mountains in Southern Africa) do not retain their resemblances once the viewing angle is changed.

And obviously something that looks like a Face when viewed from any angle cannot be 'a trick of the light' either, as NASA would have us believe.

Lastly, Carlotto analysed the whole Cydonia region fractally, using a technique employed by the military to find artificial structures in spy satellite images. The computer algorithm searches for non-fractal shapes in the picture and highlights them. Since artificial objects, unlike natural ones are non-fractal in nature this is useful for finding camouflaged military installations, tanks, or indeed any other artificial object in a

Dr Colin Ridyard

UFO Quest

Dr Colin Ridyard is a chartered chemist and a member of the Royal Society of Chemistry (RSC), as well as an RSC Parliamentary Link for his constituency MPs. He spends much of his time researching in the Public Record Office, and is *Quest*'s latest UFO researcher.

In this month's article, I would like to pay tribute to a very rare breed of politician; a politician with the drive, ambition and vision to see the UFO phenomenon for the important issue that it is; a politician with the courage to put his reputation on the line and ask why are these things coming into our airspace, what are they doing in our airspace, and, and, and ... Hey, you there, Mr Defence Minister, are you listening to me? What are you going to do about it?

One of these politicians was the late Martin Redmond, the former Don Valley MP. The 17 October 1996 edition of *Hansard* is testament to the fact that he bombarded the former Defence Minister Nicholas Soames with over three columns (1092-1094) of formal questions. These questions included:

- Whether he (SoS for defence) would make a statement on his Department's policy towards unidentified flying objects, and how it has developed during the past thirty years

- What cooperation there is between the RAF and the USAF in respect of establishing the facts relating to unidentified flying objects

- Whether he would list, by year for the last thirty years, how many structured craft of unknown origin have penetrated the UK's air defence region; and if he would make a statement

The written answer Mr Redmond received was to me extremely disappointing. Earl Howe wrote the reply and the letter dated 28 October 1996 is outlined in Figure 1. I personally feel that when the history of the 1990s is written, the Earl will come in for some harsh criticism. However, in mitigation, we have seen from The West Freugh Incident that Ministers are not always given the complete picture with regards to unidentified craft. The first line, top paragraph, second page to me sums up how ill-informed Earl Howe actually was. To have stated that no evidence exists indicating structured craft of unknown origin have penetrated the UK's Air Defence; to have stated this when such incursions have been attested to by reliable witnesses and when physical radarscope evidence has shown otherwise simply contradicts the harsh home truths that are a matter of public record.

In previous articles, I have briefly touched on the forthcoming Freedom of Information (FOI) Legislation. Having now read the Government White Paper, I sincerely believe changes in how our Government perceives unidentified craft with superfluous design and performance characteristics are now in the pipeline.

In particular, the White Paper states that

- Unnecessary secrecy in government leads to arrogance in governance and defective decision-making. The perception of excessive secrecy has become a corrosive influence in the decline of public confidence in government. Moreover, the climate of public opinion has changed: people expect much greater openness and accountability from government than they used to.

- The purpose of the [FOI] Act will be to encourage more open and accountable government by establishing a general statutory right of access to official records and information.

- The Act will have a far broader scope than ... other openness measures in government. It will cover: government departments; nationalised industries, Quangos and the UK Atomic Energy Authority; the National Health Service; the Public Service Broadcasters; local authorities; administrative functions of courts, tribunals, police and police authorities; the Armed Forces

However - and believe you me, this is a big one - it will not, I repeat, not cover: Secret Intelligence Services; Government Communications HQ; security and Special Forces (e.g. SAS, SBS)

It is a shame that Intelligence Services are exempt from the Act since we have already seen in previous articles how the Deputy Directorate of Intelligence played a significant role in dealing with unidentified aerial phenomena in the 1950s. We also know as fact that there is/was a specialist military division which cast an expert eye over UFO Reports, as part of its normal duties concerned with the air defence of the UK. This specialist division, known as Air Intelligence, Technical Branch 5b, came into existence around about 1962 according to a Memo in PRO File AIR 2/16918. The file itself actually went AWOL for a while - but that is another story.

There may well be several ways around the secret intelligence services escape clause, and these will be down to the ingenuity and persistence of UFO researchers once the Act is entered onto the statute books. However, it might be a better idea to change the way the Act is written so as to stop the rot before it sets in. From now until the Act is debated in Parliament, we are in what is called a period of consultation whereby members of the public are invited to write into the Cabinet Office Freedom of Information Unit and share their thoughts and concerns. For the price of a 26-pence stamp and a little time, readers of this magazine can hopefully make a contribution to the history of this country, and here is how we could do it:

- Since the Act is going to cover the armed forces, we must write to the FOI Unit expressing a desire that whenever our armed forces encounter an unidentified craft that displays design and performance characteristics in excess of cutting-edge technology, that the information be fed to the public by

The Need For an Open Government

means of a televised press conference. The press conference should give full details of radar returns, size, shape, speed, flight characteristics etc of the unidentified craft

- A desire should be expressed that the Armed Forces, when encountering such a craft, should also share the *full and uncensored* details with relevant scientific bodies in the UK such as the Royal Astronomical Society and the Royal Society of Chemistry

- A desire should be expressed that certain science orientated-matters that are clearly in the public interest should not be the subject of any form of extended closure, and that all such documentation currently held under extended closure should be released forthwith. These are to include diseases (e.g., BSE), chemical and radioactivity-related illnesses (e.g., Gulf War Syndrome) , human guinea-pig-type experiments (e.g., releasing agents on Waterloo Bridge), and miscellaneous (to include UFO Reports)

I personally will be writing in to share my thoughts on these issues. I will be offering up as proof all the issues I have covered over the last four articles in *Quest*; however, one chemist writing on his own will not have much of an impact. I implore readers to join me on this crusade for the truth on what is clearly an important issue.

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FOR DEFENCE

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2124H/2127H/2130H/2131H/2136H/96/M

28th October 1996

Dear Mr. Redmond,

Nicholas Soames undertook to write to you in his reply to your recent Parliamentary Questions about UFOs. (Official Report, cols 1092-1093 and 1095, copies attached). I am replying as this matter falls within my area of responsibility.

The MOD's interest in 'unexplained' aerial phenomena (Question 1) is limited to whether the UK Air Defence Region might have been compromised. Unless there is any evidence that this is the case, and to date no sighting has provided such evidence, we do not investigate further or seek to provide an explanation for what might have been observed. We have no expertise or role with respect to 'UFO/flying saucer' matters and, so far as the existence or otherwise of extraterrestrial lifeforms is concerned, we remain open minded but know of nothing that proves they exist. Our policy in this respect has not changed during the last thirty years.

RAF Standing Instructions (Question 2) require all RAF Station Commanders to forward reports of all 'UFO' sightings whether made by members of the public or on-duty Service personnel to the Secretariat (Air Staff), Branch 2a. Sec(AS)2a look at all 'UFO' sighting reports (Question 3) whether military or civilian reported. Reports are assessed in consultation with other MOD branches as required to determine whether there is any defence interest in what has been reported. Over the last twelve months there has been one instance of an on-duty member of the Services reporting an 'unexplained' aerial sighting, and this was not judged to be of any significance.

Martin Redmond Esq MP

We have no evidence (Question 4) that any structured craft of unknown origin has penetrated the UK's Air Defence Region. I am unable to provide the information you seek about reports of alleged landings (Question 5) since records are maintained only of 'UFO' sighting reports which are not broken down further into specific categories.

You ask at Questions 2a, 2b and 6-12 about collaboration and consultation with a number of foreign governments. My Department has regular discussions with a number of countries on a wide range of topics of mutual interest but such discussions have not extended to 'UFO/flying saucer' issues or the existence or otherwise of extraterrestrial life forms.

I can confirm (Question 13) that my Department's Scientific Intelligence Branch holds no records under extended closure for any period in excess of 30 years. So far as the information sought at Question 14 is concerned, the PRO has confirmed that the class list giving details of preserved records is available to researchers at Kew.

Finally, I can also confirm (Question 15) that there is no unit within the Flying Complaints Flight (FCF) based at RAF Rudloe Manor (or anywhere else) specialising in investigations into unidentified flying objects. I should add that despite continuing misunderstandings about the role of RAF Rudloe Manor in alleged 'UFO' investigations, the Station is not and never has been involved in this way.

I shall arrange for a copy of this letter to be placed in the Library of the House.

Yours sincerely,

Redmond, Howe

THE EARL HOWE

The FOI White Paper is published by The Stationery Office Ltd and can be ordered on 0171 873 9090. The "Informing Government" Web Site (http://foi.democracy.org.uk/) has been set up to promote public discussion of this White Paper and to enable the public to ask questions of, and make suggestions to, the Cabinet Minister for Public Service, Dr David Clark, who is responsible for the White Paper. Clark can be written to either c/o House of Commons, LONDON, SW1A 0AA, or at FOI Unit, Room 65d/1, Cabinet Office (Office of Public Service), Horse Guards Rd, London, SW1P 3AL.